

Appl No.: 10/055183  
Response dated: June 30, 2008  
Office Action dated: January 29, 2008

### REMARKS

Applicants appreciate the courtesy shown by the Office, as evidenced by the January 29, 2008, Office Action. In that Office Action, the Examiner rejected Claims 1-32. Claims 33-76 have been withdrawn. As such, Claims 1-76 remain in the case none of the claims being allowed.

The January 29 Office Action has been carefully considered. Applicants respectfully request reconsideration of the application in light of the accompanying amendment and the remarks presented herein.

The Examiner has objected to Claims 64-75, stating that the status identifier for these claims should be properly labeled as (Withdrawn). The status identifier for these claims has been corrected accordingly.

Claims 1-12, 14-18, and 29-31 have been rejected under 35 U.S.C. §102(b) as being anticipated by Morishita ("Index Profiling of Three-dimensional Optical Waveguides by the Propagation-Mode Near-field Method; IEEE 1986, pages 1120-1124).

Applicants submit that, in order to anticipate under §102, a reference must recite every limitation of the claimed invention. Morishita does not teach a data structure comprising at least one field containing information corresponding to a three-dimensional map of the optical member (claimed in independent Claims 1 and 12 of the instant application, and incorporated into the dependent claims by reference). The reference does not teach a three-dimensional map, but instead teaches the measurement of refractive index profile in a single dimension, as shown in Fig. 6 of the reference. Fig. 6 shows the measured refractive index difference plotted in a single dimension, as stated in column 2, page 1123, "perpendicular to the substrate surface." Thus, Morishita describes measurements made along a single axis (perpendicular to the substrate surface). Applicants submit that, in order to construct a three dimensional map, measurements must be made along a plurality of axes perpendicular to the substrate surface and along a plurality of axes parallel to the surface of the substrate. Morishita does not teach measurement along a plurality of axes parallel to the substrate

or measurements along a plurality of perpendicular axes. A three dimensional map therefore cannot be constructed from the measurements described in the reference.

Applicants further submit Morishita does not describe a three dimensional map, but instead describes measurements carried out in a single dimension on a three dimensional object – namely, a three-dimensional waveguide.

In addition, Applicants submit that Morishita does not teach a three-dimensional map that includes a plurality of refractive index values measured or distributed throughout the interior of the optical member. The refractive index is instead measured by focusing a light source on an end (i.e., surface) – not the interior – of the waveguide, as described in column 1, page 1123, of Morishita: “[t]he light is focused onto one end of the waveguide...” As previously described, the reference instead teaches a one dimensional profile of refractive index perpendicular to the substrate surface, and therefore parallel to the end or surface of the waveguide.

Applicants submit that, because Morishita does not teach a data structure comprising at least one field containing information corresponding to a three-dimensional map of the optical member or a three-dimensional map that includes a plurality of refractive index values measured or distributed throughout the interior of an optical member, the rejection of Claims 1-12, 14-18, and 29-31 have been rejected under 35 U.S.C. §102(b) as being anticipated by the reference is successfully overcome.

Claims 13 and 19-25 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Morishita in view of Matsui et al. (U.S. Patent 6,438,298).

Applicants submit that, in order to establish a *prima facie* case of obviousness, the combination of references cited must teach or suggest all of the limitations of the claimed invention. Claims 13 and 19-25 depend from independent Claim 12, and therefore include all of the limitations of the base claim by reference. Applicants submit that neither Morishita nor Matsui et al. teach or suggest a three-dimensional map of the optical member or a three-dimensional map that includes a plurality of refractive index values measured or distributed throughout the interior of the optical member. As previously presented, Morishita does not teach these limitations; Applicants further submit that nothing in the reference suggests these limitations as well. Applicants


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submit that Matsui as well neither teaches nor suggests a three-dimensional map of the optical member or a three-dimensional map that includes a plurality of refractive index values measured or distributed throughout the optical member. Because the combination of these references fails to teach or suggest all the limitations of Claims 13 and 19-25, the rejection of these claims under 35 U.S.C. §103(a) as being unpatentable over Morishita in view of Matsui et al. is successfully overcome.

In light of the amendments and remarks presented herein, Applicants submit that the case is in condition for immediate allowance and respectfully request such action. If, however, any outstanding issues remain unresolved, the Examiner is invited to telephone the Assignee's counsel at (607) 974-2112.

Respectfully submitted,

DATE: 6/30/08

  
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